

## **ICT AND HISTORY STUDENTS' ACQUISITION OF CRITICAL THINKING SKILLS**

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### **Abstract**

History as a discipline is a subject that requires indepth thinking otherwise known as critical thinking in order to be able to analyze concepts and situations very well. Critical thinking is a skill needed by history students that will equip them to think deeply so as to enable them solve complex issues relating to their topic of discussion or answer examination questions properly. However, the authors have observed that history students do not seem to possess this skill which is affecting their performance negatively. This article examines the use of Information Communication Technology (ICT) as an instructional material in the classroom for learning as a means of assisting students acquire critical thinking skills so as to improve their classroom achievement.

### **Introduction**

Over the years, the performance of history students in examinations, both internal and external exams like WAEC and NECO has not been at its best, Kaurah (2017). There are so many factors attributed to this lack of attaining such instructional objective on the part of both the history teacher and student. The pride of every teacher is to see his students make the highest grade in every examination the student sits for be it a teacher made test or standardized examinations and so also does the student.

The acquisition of critical thinking skills is very relevant to history students because it helps them go further than mere memorization of names, events, locations, dates; they begin to develop the skills that enables them think and act like historians hence these skills have values that imbue in them the ability to examine historical evidence, weigh arguements objectively, analyze cause and effect relationships and be able to determine truth from false accounts of incidences. However, a number of obstacles have continued to constitute serious obstacles on the path of the teacher and the student towards achieving this tall feat and has continued to affect performance of students negatively. Some of these challenges include lack of instructional materials for the teacher to teach well, some teachers do not have the requisite teaching qualifications to teach well and as such, lack the basic teaching methodology to dispense knowledge, lack of resource materials for the students to get relevant information etc. In this write up, the problem of lack of acquisition of critical thinking skills by the students to enable them respond to concepts, issues, problems in history shall be discussed as one of the major constraints bedevilling history students from putting in their best in their studies and subsequent outputs in their examinations how the use of ICT (infromation Communication Technology) would serve as a panacea towards addressing this challenge.

Strang, (2014) in support of the relevance of the acquisition of critical thinking skills by the history students for proper learning to occur, averred that the acquisition of critical thinking skills helps students to interpret primary and secondary sources such as letters, films, photographs, cultures and societies that existed within recent and not so recent past, arguements presented by others and evaluate them. This article shall start with an introduction, conceptualizing critical thinking and ICT, types of critical thinking, categories of ICT materials that could help history students think critically, ICT as a panacea and recommendations.

### **Conceptualizing Critical Thinking and Information Communication Technology (ICT)**

The concept of critical thinking may be one of the most significant trends in education relative to the dynamic relationship between how teachers teach and how students learn, (Mason 2010). When a student thinks critically, it depicts his teacher's ability to impart some learning skills and the contents of the history curriculum well.

Paul (2000) stated that critical thinking is basically "the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and or evaluating information gathered from or generated by observation, experience, reflection, reasoning or

communication as a guide to belief and action”.

It is absolutely imperative that history students at various levels who are moving to the college world or even world of work, are equipped with critical thinking skills that are essential to navigating a global society. Secondary level educators are an essential part of critical thinking development. Schools are faced with challenges of creating enabling environment whose students build skills set that ensure success in a competitive world because the 21st century world is a society where its not only educators that are alone in recognizing the importance of critical thinking. The demands of employment in a global economy, the survival of a democratic way of life and personal decision making in a complex and rapidly changing society require people who can reason well and make good judgements.

National Education Goal Panel (1990) identified the need for a substantial increase in “the proportion of college graduates who demonstrate an advanced ability to think critically, communicate effectively and solve problems”. Critical thinkers are problem solvers and should also be great communicators. Also making sound personal and civic decisions requires the ability to interpret information accurately through critical thinking. For history students, the acquisition of critical thinking is an essential tool for performing successfully in in examinations and survival in a complex and rapidly changing world.

The ability to analyze and creatively adapt to new situation is at the heart of critical thinking. Paul and Elder (2008) asserts that critical thinking provides a vehicle for educating the mind even though students can not be taught what to think, they can however be taught how to think, they don't only apply the knowledge in classroom test and examinations only but they inturn apply it in their lives generally and everyday activities. To be academically competent, history students need to internalize and use intellectual standards to assess their thinking criticality. They also need to generate, through creative acts of the mind, the products to be assessed, (Paul and Elder 2008).

Bernascon (2008) stated that learning how to read theoretically, to think critically, and to write authoritatively possess a gerend; piteous value, one well beyond the academic world. Instead of teaching students to merely memorize facts easily found on internet, they should be taught how to think clearly, accurately, precisely, relevantly deeply, broadly, logically, significantly and fairly, (Paul and Elder 2008).

The concept of critical thinking is not just something to be taught just in schools but in every stage of one's life. It is more significant in schools because students at this level are subjected to variuos forms of evaluation to find out whether the objective of pedagogy has been achieved. In essence, teaching students critical thinking is not just for classroom consumption, in test and examinations but its is also pertinent and significant for long life education and daily living.

### **An Overview of the Concept of ICT**

The acronym ICT simply refers to Information Communication Technology. It is a generic term used to refer to information handling tools ranging from video conferencing through multimedia delivery to web sites, internet which are used to produce, store, distribute and exchange information.

Many scholars have defined ICT variously. One of such is Ehikamenor (1993) who perceived ICT as a technique and the equipment which facilitates the acquisition, recording, processing, storing, retrieval, transmission and reception of information. ICT have introduced series of innovations for teaching and learning which have changed the structure of education at all levels. Johnson (2000) asserted that ICT have turned out to be educational necessities in this current dispensation due to its known benefits in teaching and learning. Thus, these new facilities have proved to be indispensable in education that for any university to progress and keep up with current events in the education sector, it must fully integrate ICT in all its academic activities. When these tools are pulled and work together, they combine to form what could be regarded as the networked world-which extends to every cranny of the world, UNDP Evaluation Office (2001).

Ogunsola (2005) on his own part sees ICT as an electronic based system of information transmission, reception, processing and retrieval which has drastically changed the way we think, the way we live and the environment which we live in. The phrase ICT, as observed by Arolasafe (2006) was coined by Tevenson in 1997 when he submitted a report to the government of the United Kingdom and later promoted by the new national curriculum documents for the UK in 2000. Thus, whatever definitions advanced by various scholars as to what ICT means to them, the researcher feels that there

are common features contained therein that if well understood, would give a clearer picture of the meaning of the phrase ICT. This is the fact that ICT connotes the acts of information gathering, integration and dissemination in an automated way in order to substantiate pedagogy and other academic activities both within and outside the classroom.

### **Classification of ICT for Instruction**

Information Communication Technologies can be grouped into three thus: Information technologies which uses computers and these have virtually become indispensable in modern studies. Telecommunications technologies are the second type which is made up of telephones and the broadcasting of radio and television which is done through the satellite. The third is the networking technologies and the widely used among this group is the internet. It also includes telephone technology, satellite communications and other forms of communication not well developed, (Arolasafe2007). However, a mixture of these technologies centered on multi-academic purposes in universities in the north-central zone of Nigeria will continue to play very crucial roles for history instruction if they are utilized maximally. The table below shows some of the ICT facilities that could be adequately and effectively utilized by history students to enhance effective learning in the discipline.

### **Types of ICT Facilities for Learning** **Computer mediated communication.**

Computer sends materials like lecture notes and messages, computer conferencing, electronic mail, bulletin board systems, phones.

#### **modems:**

It is one of the easiest to implement in Nigerian universities in the north central zone hence it is not too costly.

#### **Interactive video network:**

Video and audio could be transmitted on the same network-cooper microwave network. It is costly and expensive to maintain though it is becoming more obsolete with the advent of computers and internet. It is found in most universities information units and hardly for academic purpose in faculties.

#### **Low-power television network:**

It is used to send learning/historical materials using regular television signals. This is not being used in most universities though it is easy to implement.

#### **Satellite:**

This provides full motion video and audio and sometimes even two ways radio. This is yet to be implemented in Nigerian African virtual university is implementing a one-way mode.

#### **Audio conferencing:**

Two-way telephone based discussion. It is easy to implement locally and internationally though not much in use.

#### **Worldwide web:**

It is an interactive multi-media for history instruction and communications could be initiated to make it two-way. It has been implemented in most universities in Nigeria and learning centres though costly for individual.

#### **Pool of low cost technologies audio**

It is relatively simple to apply but lacks interactivity. The history teacher mostly uses it to play back recorded information.

#### **Cassettes, DVD ROM, CD-ROM, radio, television**

This involves digital radio which is useful in a large history class. It incorporates both text and video. Most Nigerian universities do not have it.

#### **Internet:**

It is a worldwide system of computer networks - in which users at any one computer can, if they have permission, get information from any other computer and sometimes talk directly to users at other computers (Lishan Adam, 2006)

These new technologies as earlier outlined by Lishan (2006) have largely become central to contemporary learning in disciplines like history in the 21st century. Whether the history student is talking on the phone, sending an e-mail, recording historical facts/information, he is using information

communication technology. The varieties of ICT's as shown above would avail the history student the opportunity to choose the ones at his disposal which would also suit his purpose for learning. This therefore signifies that mere availability and ability to use any ICT material does not qualify its use but rather, relevance to the history students needs for developing critical thinking.

### **Types of Critical Thinking**

Identifying critical thinking types is not an easy task. However, Facione (2014) has provided some insights on the type of critical thinking skills that are useful to history students which if acquired, would help them to think better as historians. These include:

**Interpretation Skill:** This is the ability for a student to understand the information he is presented with and also being able to communicate this same information to others or his class mates. For history students, the acquisition of this type of critical thinking skill will assist them in a variety of ways. One of such is that they will be in a better position to interpret historical documents, artefacts, fossils, facts, evidence etc correctly without any form of bias. Indeed, what makes a person a good historian is his ability to discern the truth from any information he is given. This can only be done if he is equipped to think critically.

**Analysis Skill:** This implies that students should have the ability to connect pieces of information together so as to determine what the information was meant to represent in order to make good meaning out of it. A typical example is when a student is conducting an interview for his project or dissertation or thesis, the usual situation is that so many pieces of information would be given to him by the interviewee. It is up to the student to know how to connect all the pieces of information, views, opinions, positions, beliefs into a meaningful one so as to achieve the purpose for which he sets out to achieve. For this to happen, the student needs to be equipped with critical thinking skills.

**Inference Skill:** It implies the student's ability to understand and recognize elements that will be required to determine an accurate conclusion on issues, situations, positions based on information at his disposal. A student who goes about conducting an interview knows that he is likely going to encounter many views on the topic of his interview. However, despite all these shades of opinions, what will make him a good historian will be his ability to arrive at his own position as a researcher and come to a final conclusion which may even differ from the ones he was presented with initially. It is the skill of inference that will make be able to arrive at a conclusion on concepts.

**Evaluation Skill:** This is the ability to discern the credibility of statements or descriptions of a person's experience, judgement or opinion in order to ascertain the validity of the information being presented. For history students, evaluation skill enables them to look at issues dispassionately and pass their judgement or take position guided by principles and facts.

**Explanation Skill:** This implies the history student's ability to not only restate knowledge the way he was thought but to also be able to add clarity and other perspectives on the information given to him so that it can be simplified and well understood by other group of students or persons. For instance, when history students are given a topic and are split into groups for discussion in the classroom. This kind of work among students require the ability to explain and information in its lowest form by those who possess such explanation skills.

### **ICT as a Panacea for the Acquisition of Critical Thinking Skills**

ICT as an instructional material is one way through which history students acquisition of critical or higher order thinking could be enhanced thus:

**Online Discussion:** An online discussion is a forum whereby students have the opportunity to chat with their class mates or teachers on problems and issues that concern their academics. The ICT medium through which the students use provides them the chance and time to reflect on their own ideas before passing it across to whoever they are discussing unlike the classroom situation where they may have just little time to think over an issue and are usually under the pressure or gaze of their class mates or teachers. McLoughlin & Mynard (2009) in support of this view adds that, "students have the time to think critically on their own without the on the spot pressure of face-to-face communication". It also affords history students the opportunity and time for critical thoughtful analysis, composition, negotiation and reflection of their discussion of an issue using ICT facilities like internet and computers, says Matheson, Wilkinson, & Gilhooly (2012).

Critical Thinking through ICT Experience: This best explained in relation to history students who have vast knowledge of the computer and web based learning which supports critical thinking. For example, when students are given an assignment that involves drawing of maps or diagrammatic representations in order to make a point, they can use the computer to generate such diagrams or maps of certain places. This involves a lot of thinking, using their ICT knowledge inform of computers to link concepts which enables students to explain ideas on diagrams or maps.

**ICT Encourages Individualised Learning:** History students who use ICT facilities like the computer, internet, tape recorders etc have the opportunity to think more critically largely because of the benefits of studying alone that these technologies offer. For example, the student who browse the internet to get more information on what the teacher taught them in the classroom will get alot of related informtion. It is up to him to think critically and select the relevant ones for his purpose because this time around, the teacher will not there to guide him in his choice of the information he needs. The student fully knows that he will have to rely on his thought in order to make any meaningful input in what he is doing and therefore, the possibility of thinking deeply is very high.

### **Recommendations**

1. History teachers need to be equipped with critical thinking skills to enable them impart same to the students.
2. ICT facilities should be provided in schools as matter of necessity so as to make the facilities available for both teachers and students
3. History teachers and students should cultivate a positive attitude towards using ICT facilities for teaching and learning in view of its relevance in the current dispensation.

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